

**WEST**

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**Search Results -**

Terms	Documents
(plant\$3 or soy\$5 or glycine\$3) and L2	19

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Database: IBM Technical Disclosure Bulletins

US Patents Full-Text Database  
US Pre-Grant Publication Full-Text Database  
JPO Abstracts Database  
EPO Abstracts Database  
Derwent World Patents Index

Search: L3

Refine Search

Recall Text    Clear

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### Search History

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DATE: Friday, February 28, 2003    [Printable Copy](#)    [Create Case](#)

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR			
<u>L3</u>	(plant\$3 or soy\$5 or glycine\$3) and L2	19	<u>L3</u>
<u>L2</u>	reductas\$3 and mthfr\$3	43	<u>L2</u>
<u>L1</u>	reductas\$3 same methylene?	5	<u>L1</u>

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 10 of 19 returned.****1. Document ID: US 20030031681 A1**

L3: Entry 1 of 19

File: PGPB

Feb 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030031681

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030031681 A1

TITLE: Combined growth factor-deleted and thymidine kinase-deleted vaccinia virus vector

PUBLICATION-DATE: February 13, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
McCart, J. Andrea	Toronto	PA	CA	
Bartlett, David L.	Pittsburgh	MD	US	
Moss, Bernard	Bethesda		US	

US-CL-CURRENT: 424/186.1; 435/235.1, 435/456

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KIMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>												

**2. Document ID: US 20030023387 A1**

L3: Entry 2 of 19

File: PGPB

Jan 30, 2003

PGPUB-DOCUMENT-NUMBER: 20030023387

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030023387 A1

TITLE: Computer-assisted means for assessing lifestyle risk factors

PUBLICATION-DATE: January 30, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gill-Garrison, Rosalynn D.	Isle of Wight		GB	
Martin, Christopher J.	Isle of Wight		GB	
Sanchez-Felix, Manuel V.	Isle of Wight		GB	

US-CL-CURRENT: 702/20; 705/3

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KIMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>												

**3. Document ID: US 20030023070 A1**

L3: Entry 3 of 19

File: PGPB

Jan 30, 2003

PGPUB-DOCUMENT-NUMBER: 20030023070

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030023070 A1

TITLE: Attractin-like polynucleotides, polypeptides, and antibodies

PUBLICATION-DATE: January 30, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ni, Jian	Germantown	MD	US	
Ruben, Steven M.	Olney	MD	US	
Young, Paul E.	Gaithersburg	MD	US	

US-CL-CURRENT: 536/23.5; 435/320.1, 435/325, 435/69.1, 530/350

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KIMC</a>	<a href="#">Draw. Desc.</a>
<a href="#">Image</a>												

**4. Document ID: US 20020198211 A1**

L3: Entry 4 of 19

File: PGPB

Dec 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020198211

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020198211 A1

TITLE: cDNA for human methylenetetrahydrofolate reductase and uses thereof

PUBLICATION-DATE: December 26, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rozen, Rima	Montreal West		CA	

US-CL-CURRENT: 514/251; 435/6

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KIMC</a>	<a href="#">Draw. Desc.</a>
<a href="#">Image</a>												

**5. Document ID: US 20020192784 A1**

L3: Entry 5 of 19

File: PGPB

Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020192784

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020192784 A1

TITLE: Biosynthesis of S-adenosylmethionine in a recombinant yeast strain

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Appling, Dean R.	Austin	TX	US	
Hanson, Andrew D.	Gainesville	FL	US	
Roje, Sanja	Gainesville	FL	US	
Raymond, Rhonda K.	Austin	TX	US	

US-CL-CURRENT: 435/191; 435/320.1, 435/419, 435/69.1, 536/23.2, 800/278

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KINIC	Draw. Desc
<a href="#">Image</a>											

6. Document ID: US 20020192310 A1

L3: Entry 6 of 19

File: PGPB

Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020192310  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20020192310 A1

TITLE: Medical composition for managing hormone balance

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bland, Jeffrey S.	Fox Island	WA	US	
Liska, DeAnn J.	Gig Harbor	WA	US	
Tripp, Matthew	Gig Harbor	WA	US	
Darland, Gary K.	Gig Harbor	WA	US	
Lukaczer, Daniel O.	Gig Harbor	WA	US	
Lerman, Robert	Gig Harbor	WA	US	

US-CL-CURRENT: 424/745; 424/755, 424/756, 424/757, 514/23, 514/27, 514/53, 514/733

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KINIC	Draw. Desc
<a href="#">Image</a>											

7. Document ID: US 20020155467 A1

L3: Entry 7 of 19

File: PGPB

Oct 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020155467  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20020155467 A1

TITLE: Method for the determination of at least one functional polymorphism in the nucleotide sequence of a preselected candidate gene and its applications

PUBLICATION-DATE: October 24, 2002

INVENTOR-INFORMATION:

NAME Escary, Jean-Louis	CITY Le Chesnay	STATE	COUNTRY	RULE-47
			FR	

US-CL-CURRENT: 435/6

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KUMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>											

 8. Document ID: US 20020147140 A1

L3: Entry 8 of 19

File: PGPB

Oct 10, 2002

PGPUB-DOCUMENT-NUMBER: 20020147140  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20020147140 A1

TITLE: Nucleic acids, proteins, and antibodies

PUBLICATION-DATE: October 10, 2002

## INVENTOR-INFORMATION:

NAME Rosen, Craig A.	CITY Laytonsville	STATE MD	COUNTRY US	RULE-47
Ruben, Steven M.	Olney	MD	US	
Barash, Steven C.	Rockville	MD	US	

US-CL-CURRENT: 514/12; 435/183, 435/320.1, 435/325, 435/6, 435/69.1, 530/350, 536/23.1

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KUMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>											

 9. Document ID: US 20020102689 A1

L3: Entry 9 of 19

File: PGPB

Aug 1, 2002

PGPUB-DOCUMENT-NUMBER: 20020102689  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20020102689 A1

TITLE: Tetrahydrofolate metabolism enzymes

PUBLICATION-DATE: August 1, 2002

## INVENTOR-INFORMATION:

NAME Falco, Saverio Carl	CITY Wilmington	STATE DE	COUNTRY US	RULE-47
Famodu, Layo O.	Newark	DE	US	
Orozco, Emil M. JR.	West Grove	PA	US	
Rafalski, J. Antoni	Wilmington	DE	US	
Thorpe, Catherine J.	St. Albans		GB	

US-CL-CURRENT: 435/193; 435/320.1, 435/325, 435/69.1, 536/23.2

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KIMC</a>	<a href="#">Draw Desc</a>
<a href="#">Image</a>											

**10. Document ID: US 20020040490 A1**

L3: Entry 10 of 19

File: PGPB

Apr 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020040490

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020040490 A1

TITLE: Expressed sequences of arabidopsis thaliana

PUBLICATION-DATE: April 4, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gorlach, Jorn	Durham	NC	US	
An, Yong-Qiang	San Diego	CA	US	
Hamilton, Carol M.	Apex	NC	US	
Price, Jennifer L.	Raleigh	NC	US	
Raines, Tracy M.	Durham	NC	US	
Yu, Yang	Martinsville	NJ	US	
Rameaka, Joshua G.	Durham	NC	US	
Page, Amy	Durham	NC	US	
Mathew, Abraham V.	Cary	NC	US	
Ledford, Brooke L.	Holly Springs	NC	US	
Woessner, Jeffrey P.	Hillsborough	NC	US	
Haas, William David	Durham	NC	US	
Garcia, Carlos A.	Carrboro	NC	US	
Kricker, Maja	Pittsboro	NC	US	
Slater, Ted	Apex	NC	US	
Davis, Keith R.	Durham	NC	US	
Allen, Keith	Cary	NC	US	
Hoffman, Neil	Chapel Hill	NC	US	
Hurban, Patrick	Raleigh	NC	US	

US-CL-CURRENT: 800/288; 435/4, 536/23.2, 536/23.6

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KIMC</a>	<a href="#">Draw Desc</a>
<a href="#">Image</a>											

**Generate Collection****Print**

Terms	Documents
(plant\$3 or soy\$5 or glycine\$3) and L2	19

Display Format: -

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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 11 through 19 of 19 returned.****11. Document ID: US 20020039990 A1**

L3: Entry 11 of 19

File: PGPB

Apr 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020039990

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020039990 A1

TITLE: Gene sequence variances in genes related to folate metabolism having utility in determining the treatment of disease

PUBLICATION-DATE: April 4, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Stanton, Vincent P. JR.	Belmont	MA	US	

US-CL-CURRENT: 514/1; 435/6

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMC</a>	<a href="#">Draw Desc</a>
<a href="#">Image</a>											

**12. Document ID: US 20010025030 A1**

L3: Entry 12 of 19

File: PGPB

Sep 27, 2001

PGPUB-DOCUMENT-NUMBER: 20010025030

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010025030 A1

TITLE: cDNA for human methylenetetrahydrofolate reductase and uses thereof

PUBLICATION-DATE: September 27, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rozen, Rima	Montreal West		CA	
Sekhon, Jaspreet	Vancouver		CA	

US-CL-CURRENT: 514/44; 435/6

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMC</a>	<a href="#">Draw Desc</a>
<a href="#">Image</a>											

**13. Document ID: US 6451526 B1**

L3: Entry 13 of 19

File: USPT

Sep 17, 2002

US-PAT-NO: 6451526  
DOCUMENT-IDENTIFIER: US 6451526 B1

TITLE: Simplified mutation detection

DATE-ISSUED: September 17, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Song; Lu	Miami	FL		
O'Kane; Dennis J.	Rochester	MN		
Krajnik; Kelly L.	Rochester	MN		
Heit; John A.	Rochester	MN		

US-CL-CURRENT: 435/6; 435/91.1, 435/91.2, 536/22.1, 536/23.1, 536/24.3, 536/24.31,  
536/24.32, 536/24.33

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KIMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>											

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14. Document ID: US 6376210 B1

L3: Entry 14 of 19

File: USPT

Apr 23, 2002

US-PAT-NO: 6376210  
DOCUMENT-IDENTIFIER: US 6376210 B1

TITLE: Methods and compositions for assaying analytes

DATE-ISSUED: April 23, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yuan; Chong-Sheng	San Diego	CA		

US-CL-CURRENT: 435/18; 435/195, 435/23, 435/252.3, 435/320.1, 435/455

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KIMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>											

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15. Document ID: US 6218120 B1

L3: Entry 15 of 19

File: USPT

Apr 17, 2001

US-PAT-NO: 6218120  
DOCUMENT-IDENTIFIER: US 6218120 B1

TITLE: Methods for detecting human methylene tetrahydrofolate reductase allelic variants

DATE-ISSUED: April 17, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rozen; Rima	Montreal			CA
Goyette; Philippe	Montreal			CA

US-CL-CURRENT: 435/6; 435/91.2, 536/23.2, 536/23.5, 536/24.31, 536/24.33

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc
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<a href="#">Image</a>											

 16. Document ID: US 6210950 B1

L3: Entry 16 of 19

File: USPT

Apr 3, 2001

US-PAT-NO: 6210950

DOCUMENT-IDENTIFIER: US 6210950 B1

TITLE: Methods for diagnosing, preventing, and treating developmental disorders due to a combination of genetic and environmental factors

DATE-ISSUED: April 3, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Johnson; William G.	Short Hills	NJ		
Stenroos; Edward Scott	Harrison	NJ		

US-CL-CURRENT: 435/252.3; 435/183, 435/320.1, 536/23.1, 536/24.31, 536/24.33

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc
<hr/>											
<a href="#">Image</a>											

 17. Document ID: US 6074821 A

L3: Entry 17 of 19

File: USPT

Jun 13, 2000

US-PAT-NO: 6074821

DOCUMENT-IDENTIFIER: US 6074821 A

TITLE: CDNA for human methylenetetrahydrofolate reductase

DATE-ISSUED: June 13, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rozen; Rima	Quebec			CA
Goyette; Philippe	Quebec			CA

US-CL-CURRENT: 435/6; 435/91.2, 536/23.5, 536/24.31, 536/24.33

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc
<hr/>											
<a href="#">Image</a>											

18. Document ID: WO 2079381 A2

L3: Entry 18 of 19

File: EPAB

Oct 10, 2002

PUB-NO: WO002079381A2

DOCUMENT-IDENTIFIER: WO 2079381 A2

TITLE: BIOSYNTHESIS OF S-ADENOSYLMETHIONINE IN A RECOMBINANT YEAST STRAIN

PUBN-DATE: October 10, 2002

## INVENTOR-INFORMATION:

NAME

COUNTRY

APPLING, DEAN R

HANSON, ANDREW D

RAYMOND, RHONDA R

ROJE, SANJA

INT-CL (IPC): C12 N 0/

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>											

19. Document ID: WO 200279381 A2 US 20020192784 A1

L3: Entry 19 of 19

File: DWPI

Oct 10, 2002

DERWENT-ACC-NO: 2003-040671

DERWENT-WEEK: 200303

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TITLE: Novel fused gene encoding methylene tetrahydrofolate reductase, useful for producing S-adenosylmethionine in plants, comprises N-terminal domain from yeast and C-terminal domain from plant

INVENTOR: APPLING, D R; HANSON, A D ; RAYMOND, R K ; ROJE, S ; RAYMOND, R R

PRIORITY-DATA: 2001US-280333P (March 30, 2001), 2002US-0113852 (March 29, 2002)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200279381 A2	October 10, 2002	E	052	C12N000/00
US 20020192784 A1	December 19, 2002		000	C12N009/06

INT-CL (IPC): C07 H 21/04; C12 N 0/00; C12 N 5/04; C12 N 5/06; C12 N 9/06; C12 P 21/02

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMC</a>	<a href="#">Drawn Desc</a>
<a href="#">Image</a>											

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(FILE 'HOME' ENTERED AT 17:45:51 ON 28 FEB 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,  
BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,  
CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,  
DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 17:46:04 ON  
28 FEB 2003

SEA REDUCTAS? AND METHYLENETETRA?

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57 FILE ADISCTI  
2 FILE ADISINSIGHT  
5 FILE ADISNEWS  
36 FILE AGRICOLA  
6 FILE ANABSTR  
1 FILE AQUASCI  
3 FILE BIOCERNS  
3 FILE BIOCOMMERCE  
1544 FILE BIOSIS  
16 FILE BIOTECHABS  
16 FILE BIOTECHDS  
417 FILE BIOTECHNO  
132 FILE CABA  
168 FILE CANCERLIT  
1160 FILE CAPLUS  
3 FILE CEABA-VTB  
9 FILE CIN  
41 FILE CONFSCI  
29 FILE DDFB  
51 FILE DDFU  
265 FILE DGENE  
29 FILE DRUGB  
72 FILE DRUGU  
29 FILE EMBAL  
1394 FILE EMBASE  
597 FILE ESBIOBASE  
42 FILE FEDRIP  
30 FILE FROSTI  
5 FILE FSTA  
349 FILE GENBANK  
1 FILE HEALSAFE  
6 FILE IFIPAT  
61 FILE JICST-EPLUS  
103 FILE LIFESCI  
1117 FILE MEDLINE  
1 FILE NUTRACEUT  
696 FILE PASCAL  
1 FILE PHIC  
6 FILE PHIN  
18 FILE PROMT  
1906 FILE SCISEARCH  
675 FILE TOXCENTER  
140 FILE USPATFULL  
1 FILE USPAT2  
14 FILE WPIDS  
14 FILE WPINDEX  
4 FILE IPA  
24 FILE NLDB

L1       QUE REDUCTAS? AND METHYLENETETRA?

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FILE 'SCISEARCH, BIOSIS, EMBASE, CAPLUS, MEDLINE, PASCAL, TOXCENTER,  
ESBIOBASE, BIOTECHNO, GENBANK, DGENE, CANCERLIT, USPATFULL, CABA,  
LIFESCI' ENTERED AT 17:50:25 ON 28 FEB 2003

L2       0 S REDUCTAS? SAME METHYLENETETRA?

L3       10663 S REDUCTAS? AND METHYLENETETRA?

L4       10320 S REDUCTAS? AND METHYLENETETRAHYDROFOLAT?

L5       12478 S REDUCTAS? AND FOLATE?

L6 0 S REDUCTAS? SAME MTHFR?  
L7 6544 S REDUCTAS? AND MTHFR?  
L8 138 S (PLANT? OR SOY? OR GLYCINE?) AND L7  
L9 78 DUP REM L8 (60 DUPLICATES REMOVED)

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NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 4 Apr 09 ZDB will be removed from STN  
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NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter (PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 25 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
NEWS 26 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985  
NEWS 27 Oct 21 EVENTLINE has been reloaded  
NEWS 28 Oct 24 BEILSTEIN adds new search fields  
NEWS 29 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN  
NEWS 30 Oct 25 MEDLINE SDI run of October 8, 2002  
NEWS 31 Nov 18 DKILIT has been renamed APOLLIT  
NEWS 32 Nov 25 More calculated properties added to REGISTRY  
NEWS 33 Dec 02 TIBKAT will be removed from STN  
NEWS 34 Dec 04 CSA files on STN  
NEWS 35 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date  
NEWS 36 Dec 17 TOXCENTER enhanced with additional content  
NEWS 37 Dec 17 Adis Clinical Trials Insight now available on STN  
NEWS 38 Dec 30 ISMEC no longer available  
NEWS 39 Jan 13 Indexing added to some pre-1967 records in CA/CAPLUS  
NEWS 40 Jan 21 NUTRACEUT offering one free connect hour in February 2003  
NEWS 41 Jan 21 PHARMAML offering one free connect hour in February 2003  
NEWS 42 Jan 29 Simultaneous left and right truncation added to COMPENDEX,  
ENERGY, INSPEC  
NEWS 43 Feb 13 CANCERLIT is no longer being updated  
NEWS 44 Feb 24 METADEX enhancements  
NEWS 45 Feb 24 PCTGEN now available on STN  
NEWS 46 Feb 24 TEMA now available on STN  
NEWS 47 Feb 26 NTIS now allows simultaneous left and right truncation  
NEWS 48 Feb 26 PCTFULL now contains images

NEWS EXPRESS	January 6 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 17:45:51 ON 28 FEB 2003

=> index bioscience medicine  
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED  
COST IN U.S. DOLLARS  
  
FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
0.21	0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 17:46:04 ON 28 FEB 2003

## 68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0\* with SET DETAIL OFF.

=> s reductas? and methylenetetra?

57	FILE ADISCTI
2	FILE ADISINSIGHT
5	FILE ADISNEWS
36	FILE AGRICOLA
6	FILE ANABSTR
1	FILE AQUASCI
3	FILE BIOBUSINESS
3	FILE BIOCOMMERCE
1544	FILE BIOSIS
16	FILE BIOTECHABS
16	FILE BIOTECHDS
417	FILE BIOTECHNO
132	FILE CABA
168	FILE CANCERLIT
1160	FILE CAPLUS
3	FILE CEABA-VTB
9	FILE CIN
41	FILE CONFSCI
29	FILE DDFB
51	FILE DDFU
265	FILE DGENE
29	FILE DRUGB
72	FILE DRUGU

30 FILES SEARCHED...

29	FILE EMBAL
1394	FILE EMBASE
597	FILE ESBIOBASE
42	FILE FEDRIP
30	FILE FROSTI
5	FILE FSTA
349	FILE GENBANK
1	FILE HEALSAFE
6	FILE IFIPAT
61	FILE JICST-EPLUS
103	FILE LIFESCI
1117	FILE MEDLINE
1	FILE NUTRACEUT
696	FILE PASCAL
1	FILE PHIC
6	FILE PHIN
18	FILE PROMT
1906	FILE SCISEARCH
675	FILE TOXCENTER
140	FILE USPATFULL
1	FILE USPAT2

63 FILES SEARCHED...

14	FILE WPIDS
14	FILE WPINDEX
4	FILE IPA
24	FILE NLDB

48 FILES HAVE ONE OR MORE ANSWERS, 68 FILES SEARCHED IN STNINDEX

L1 QUE REDUCTAS? AND METHYLENETETRA?

```
=> d rank
F1      1906  SCISEARCH
F2      1544  BIOSIS
F3      1394  EMBASE
F4      1160  CAPLUS
F5      1117  MEDLINE
F6      696   PASCAL
F7      675   TOXCENTER
F8      597   ESBIOBASE
F9      417   BIOTECHNO
F10     349   GENBANK
F11     265   DGENE
F12     168   CANCERLIT
F13     140   USPATFULL
F14     132   CABA
F15     103   LIFESCI
F16     72    DRUGU
F17     61    JICST-EPLUS
F18     57    ADISCTI
F19     51    DDFU
F20     42    FEDRIP
F21     41    CONFSCI
F22     36    AGRICOLA
F23     30    FROSTI
F24     29    DDFB
F25     29    DRUGB
F26     29    EMBAL
F27     24    NLDB
F28     18    PROMT
F29     16    BIOTECHABS
F30     16    BIOTECHDS
F31     14    WPIDS
F32     14    WPINDEX
```

F33	9	CIN
F34	6	ANABSTR
F35	6	IFIPAT
F36	6	PHIN
F37	5	ADISNEWS
F38	5	FSTA
F39	4	IPA
F40	3	BIOBUSINESS
F41	3	BIOCOPMERCE
F42	3	CEABA-VTB
F43	2	ADISINSIGHT
F44	1	AQUASCI
F45	1	HEALSAFE
F46	1	NUTRACEUT
F47	1	PHIC
F48	1	USPAT2

=> file f1-f15		
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	3.85	4.06

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=> s reductas? same methylenetetra?  
L2 0 REDUCTAS? SAME METHYLENETETRA?

=> s reductas? and methylenetetra?  
L3 10663 REDUCTAS? AND METHYLENETETRA?

=> s reductas? and methylenetetrahydrofolat?  
L4 10320 REDUCTAS? AND METHYLENETETRAHYDROFOLAT?

=> s reductas? and folate?  
L5 12478 REDUCTAS? AND FOLATE?

=> d ti 15

L5 ANSWER 1 OF 12478 SCISEARCH COPYRIGHT 2003 ISI (R)  
TI Genotype and haplotype distributions of MTHFR 677C > T and 1298A > C  
single nucleotide polymorphisms: a meta-analysis

=> d ti 14

L4 ANSWER 1 OF 10320 SCISEARCH COPYRIGHT 2003 ISI (R)  
TI Stroke in young patients with hyperhomocysteinemia due to cystathionine  
beta-synthase deficiency

=> s reductas? same mthfr?  
L6 0 REDUCTAS? SAME MTHFR?

=> s reductas? and mthfr?  
L7 6544 REDUCTAS? AND MTHFR?

=> s (plant? or soy? or glycine?) and 17  
9 FILES SEARCHED...  
L8 138 (PLANT? OR SOY? OR GLYCINE?) AND L7

=> dup rem 18  
DUPLICATE IS NOT AVAILABLE IN 'GENBANK, DGENE'.  
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE  
PROCESSING COMPLETED FOR L8  
L9 78 DUP REM L8 (60 DUPLICATES REMOVED)

=> d ti 19 1-78

L9 ANSWER 1 OF 78 USPATFULL  
TI Combined growth factor-deleted and thymidine kinase-deleted vaccinia  
virus vector

L9 ANSWER 2 OF 78 USPATFULL  
TI Computer-assisted means for assessing lifestyle risk factors

L9 ANSWER 3 OF 78 USPATFULL  
TI Attractin-like polynucleotides, polypeptides, and antibodies

L9 ANSWER 4 OF 78 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
TI Vitamin B12 decreases, but does not normalize, homocysteine and  
methylmalonic acid in end-stage renal disease: A link with glycine  
metabolism and possible explanation of hyperhomocysteinemia in end-stage  
renal disease

- L9 ANSWER 5 OF 78 USPATFULL  
TI cDNA for human methylenetetrahydrofolate **reductase** and uses thereof
- L9 ANSWER 6 OF 78 USPATFULL  
TI Biosynthesis of S-adenosylmethionine in a recombinant yeast strain
- L9 ANSWER 7 OF 78 USPATFULL  
TI Medical composition for managing hormone balance
- L9 ANSWER 8 OF 78 USPATFULL  
TI Method for the determination of at least one functional polymorphism in the nucleotide sequence of a preselected candidate gene and its applications
- L9 ANSWER 9 OF 78 USPATFULL  
TI Nucleic acids, proteins, and antibodies
- L9 ANSWER 10 OF 78 USPATFULL  
TI Tetrahydrofolate metabolism enzymes
- L9 ANSWER 11 OF 78 USPATFULL  
TI Expressed sequences of arabidopsis thaliana
- L9 ANSWER 12 OF 78 USPATFULL  
TI Gene sequence variances in genes related to folate metabolism having utility in determining the treatment of disease
- L9 ANSWER 13 OF 78 USPATFULL  
TI Methods and compositions for assaying analytes
- L9 ANSWER 14 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 2  
TI Metabolic engineering in yeast demonstrates that S-adenosylmethionine controls flux through the methylenetetrahydrofolate **reductase** reaction in vivo
- L9 ANSWER 15 OF 78 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 3  
TI Polymorphisms in the thymidylate synthase and serine hydroxymethyltransferase genes and risk of adult acute lymphocytic leukemia.
- L9 ANSWER 16 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 4  
TI Homocysteine and folate status in methotrexate-treated patients with rheumatoid arthritis
- L9 ANSWER 17 OF 78 MEDLINE  
TI Spina bifida, folate metabolism, and dietary folate intake in a Northern Canadian aboriginal population.
- L9 ANSWER 18 OF 78 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 5  
TI Thymidylate synthase: A novel genetic determinant of plasma homocysteine and folate levels.
- L9 ANSWER 19 OF 78 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI Smoking behavior and the C677T allele of the methylenetetrahydrofolate **reductase** (MTHFR) gene.
- L9 ANSWER 20 OF 78 CAPLUS COPYRIGHT 2003 ACS  
TI Detection of variations in the DNA methylation profile of genes in the determining the risk of disease
- L9 ANSWER 21 OF 78 USPATFULL  
TI cDNA for human methylenetetrahydrofolate **reductase** and uses thereof

- L9 ANSWER 22 OF 78 USPATFULL  
TI Methods for detecting human methylene tetrahydrofolate reductase allelic variants
- L9 ANSWER 23 OF 78 USPATFULL  
TI Methods for diagnosing, preventing, and treating developmental disorders due to a combination of genetic and environmental factors
- L9 ANSWER 24 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 6  
TI Genetic susceptibility to preeclampsia: Roles of cytosine-to-thymine substitution at nucleotide 677 of the gene for methylenetetrahydrofolate reductase, 68-base pair insertion at nucleotide 844 of the gene for cystathionine beta-synthase, and factor V Leiden mutation
- L9 ANSWER 25 OF 78 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI Regulation of homocysteine remethylation and other cycles of one-carbon metabolism.
- L9 ANSWER 26 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 7  
TI Ontogeny of hepatic enzymes involved in serine- and folate-dependent one-carbon metabolism in rabbits
- L9 ANSWER 27 OF 78 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V.  
TI Ontogeny of hepatic enzymes involved in serine- and folate-dependent one-carbon metabolism in rabbits
- L9 ANSWER 28 OF 78 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI Lower thoracic spinal cord ischemia in a boy with resistance to C activated protein: A clinical and genetic study.
- L9 ANSWER 29 OF 78 CABA COPYRIGHT 2003 CAB  
TI Genetic, dietary, and other lifestyle determinants of plasma homocysteine concentrations in middle-aged and older Chinese men and women in Singapore.
- L9 ANSWER 30 OF 78 CAPLUS COPYRIGHT 2003 ACS  
TI Toward elucidating the global gene expression patterns of developing Arabidopsis: parallel analysis of 8 300 genes by a high-density oligonucleotide probe array
- L9 ANSWER 31 OF 78 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
TI Homozygous V/V (677C to T) and D/D (2756G to A) variants in the methylenetetrahydrofolate and methionine synthase genes in a case of hyperhomocysteinemia with stroke at young age.
- L9 ANSWER 32 OF 78 PASCAL COPYRIGHT 2003 INIST-CNRS. ALL RIGHTS RESERVED.  
TIEN Ontogeny of hepatic enzymes involved in serine- and folate-dependent one-carbon metabolism in rabbits
- L9 ANSWER 33 OF 78 USPATFULL  
TI CDNA for human methylenetetrahydrofolate reductase
- L9 ANSWER 34 OF 78 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 8  
TI Effect of heterozygosity for the methionine synthase 2756 A.fwdarw.G mutation on the risk for recurrent cardiovascular events
- L9 ANSWER 35 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 9  
TI Genetic modulation of homocysteinemia
- L9 ANSWER 36 OF 78 MEDLINE DUPLICATE 10  
TI Diet and prevention of colorectal cancer.
- L9 ANSWER 37 OF 78 CABA COPYRIGHT 2003 CAB  
TI Identification of two cDNAs encoding methylenetetrahydrofolate

**reductase.**

L9 ANSWER 38 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 11  
TI Isolation, characterization, and functional expression of cDNAs encoding NADH-dependent methylenetetrahydrofolate **reductase** from higher plants

L9 ANSWER 39 OF 78 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI Functional characterization of human methylenetetrahydrofolate **reductase** in *Saccharomyces cerevisiae*.

L9 ANSWER 40 OF 78 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI *Saccharomyces cerevisiae* expresses two genes encoding isozymes of methylenetetrahydrofolate **reductase**.

L9 ANSWER 41 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 12  
TI Polymorphism of the methionine synthase gene - Association with homocysteine metabolism and late-onset vascular diseases in the Japanese population

L9 ANSWER 42 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 13  
TI Methionine synthase D919G polymorphism is a significant but modest determinant of circulating homocysteine concentrations

L9 ANSWER 43 OF 78 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
TI Altered folate and vitamin B12 metabolism in families with spina bifida offspring.

L9 ANSWER 44 OF 78 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI Human methylenetetrahydrofolate **reductase**: Isolation of cDNA, mapping and mutation identification.

L9 ANSWER 45 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Public **Soybean** EST Project

L9 ANSWER 46 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Arabidopsis Open Reading Frame (ORF) Clones  
TITLE (TI) : Direct Submission

L9 ANSWER 47 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Genomic sequence for *Oryza sativa*, Nipponbare strain, clone OJ1208D02, from chromosome 10, complete sequence  
TITLE (TI) : Direct Submission  
TITLE (TI) : Direct Submission

L9 ANSWER 48 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Arabidopsis Full Length cDNA Clones  
TITLE (TI) : Direct Submission

L9 ANSWER 49 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Public **Soybean** EST Project

L9 ANSWER 50 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Nucleotide sequence and predicted functions of the entire *Sinorhizobium meliloti* pSymA megaplasmid  
TITLE (TI) : Direct Submission

L9 ANSWER 51 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Public Soybean EST Project

L9 ANSWER 52 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Direct Submission

L9 ANSWER 53 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Isolation, characterization, and functional expression of cDNAs encoding NADH-dependent methylenetetrahydrofolate reductase from higher plants

TITLE (TI) : Direct Submission

L9 ANSWER 54 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Isolation, characterization, and functional expression of cDNAs encoding NADH-dependent methylenetetrahydrofolate reductase from higher plants

TITLE (TI) : Direct Submission

L9 ANSWER 55 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Folate metabolism in higher plants: cloning of a cDNA for 5,10-methylenetetrahydrofolate reductase in *Arabidopsis thaliana*

TITLE (TI) : Direct Submission

L9 ANSWER 56 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Isolation, characterization, and functional expression of cDNAs encoding NADH-dependent methylenetetrahydrofolate reductase from higher plants

TITLE (TI) : Direct Submission

L9 ANSWER 57 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Direct Submission

L9 ANSWER 58 OF 78 GENBANK.RTM. COPYRIGHT 2003

TITLE (TI) : Direct Submission

L9 ANSWER 59 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate reductase, useful for producing S-adenosylmethionine in plants, comprises N-terminal domain from yeast and C-terminal domain from plant

L9 ANSWER 60 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate reductase, useful for producing S-adenosylmethionine in plants, comprises N-terminal domain from yeast and C-terminal domain from plant

L9 ANSWER 61 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in plants and seeds -

L9 ANSWER 62 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in plants and seeds -

- L9 ANSWER 63 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in **plants** and seeds -
- L9 ANSWER 64 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 65 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 66 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 67 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 68 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 69 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 70 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 71 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 72 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 73 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from plant -
- L9 ANSWER 74 OF 78 DGENE (C) 2003 THOMSON DERWENT

TI Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from **plant**  
-  
L9 ANSWER 75 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in **plants** and seeds -  
L9 ANSWER 76 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in **plants** and seeds -  
L9 ANSWER 77 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in **plants** and seeds -  
L9 ANSWER 78 OF 78 DGENE (C) 2003 THOMSON DERWENT  
TI Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in **plants** and seeds -

=> d 19 ibib abs 72 78 38 39

L9 ANSWER 72 OF 78 DGENE (C) 2003 THOMSON DERWENT  
ACCESSION NUMBER: ABV74171 DNA DGENE  
TITLE: Novel fused gene encoding methylene tetrahydrofolate **reductase**, useful for producing S-adenosylmethionine in **plants**, comprises N-terminal domain from yeast and C-terminal domain from **plant** -  
INVENTOR: Appling D R; Hanson A D; Raymond R R; Roje S  
PATENT ASSIGNEE: (TEXA)UNIV TEXAS.  
(UYFL) UNIV FLORIDA.  
PATENT INFO: WO 2002079381 A2 20021010 52p  
APPLICATION INFO: WO 2002-US10064 20020329  
PRIORITY INFO: US 2001-280333P 20010330  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: 2003-040671 [03]  
AN ABV74171 DNA DGENE  
AB The present sequence encodes a 14-amino acid sequence comprising the fusion junction of a novel fusion protein of the invention comprising the N-terminal catalytic domain (see ABP55056) of *Saccharomyces cerevisiae* methylene tetrahydrofolate **reductase** (**MTHFR**) and the C-terminal regulatory domain (see ABP55057) of *Arabidopsis thaliana* AtMTHFR-1. The DNA sequence codes for 7 amino acids from each protein fragment that makes up the fusion protein. The fusion protein is an S-adenosylmethionine (AdoMet) insensitive enzyme, which can use both NADPH and NADH, and which has the novel combined catalytic and regulatory properties of its parents. Expression of the fusion protein in a host cell capable of methionine biosynthesis results in the overproduction of AdoMet, without the need to supply the host with a source of untransformed methionine. In an example, AdoMet production in yeast cells expressing chimeric **MTHFR** was 75 to 254 times that of wild-type cells. The fusion protein can also be expressed in **plant** cells. AdoMet is a metabolic agent used in the treatment of depression, osteoarthritis, fibromyalgia, liver cirrhosis and migraine.

L9 ANSWER 78 OF 78 DGENE (C) 2003 THOMSON DERWENT  
ACCESSION NUMBER: AAZ50059 cDNA DGENE  
TITLE: Novel tetrahydrofolate metabolism enzyme used to alter the level of tetrahydrofolate metabolism in **plants** and seeds -  
INVENTOR: Falco S C; Fomodu L O  
PATENT ASSIGNEE: (DUPO)DU PONT DE NEMOURS & CO E I.

PATENT INFO: WO 2000004163 A1 20000127  
APPLICATION INFO: WO 1999-US15916 19990714  
PRIORITY INFO: US 1998-92869 19980715  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: 2000-182429 [16]

37p

AN AAZ50059 cDNA DGENE  
AB The present sequence is a cDNA clone ccol.pk0049.d4 encoding 5,10-methylenetetrahydrofolate **reductase (MTHFR)**. The clone was isolated from a ccol cDNA library which was prepared using corn cob of 67 days old **plants** grown in green house. **MTHFR** plays a role in the synthesis of methionine. The present sequence is used in the construction of a chimeric gene to alter the level of tetrahydrofolate metabolism enzymes in **plants**. The enzyme may provide target to facilitate design and/or identification of inhibitors that may be useful as herbicides. The polynucleotide is also useful as a source of probes for genetically and physically mapping the genes and as markers for traits linked to the genes.

L9 ANSWER 38 OF 78 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 11  
ACCESSION NUMBER: 2000:628 SCISEARCH  
THE GENUINE ARTICLE: 266AV  
TITLE: Isolation, characterization, and functional expression of cDNAs encoding NADH-dependent methylenetetrahydrofolate **reductase** from higher **plants**  
AUTHOR: Roje S; Wang H; McNeil S D; Raymond R K; Appling D R; ShacharHill Y; Bohnert H J; Hanson A D (Reprint)  
CORPORATE SOURCE: UNIV FLORIDA, DEPT HORT SCI, GAINESVILLE, FL 32611 (Reprint); UNIV FLORIDA, DEPT HORT SCI, GAINESVILLE, FL 32611; UNIV ARIZONA, DEPT BIOCHEM, TUCSON, AZ 85721; UNIV TEXAS, DEPT CHEM & BIOCHEM, AUSTIN, TX 78712; NEW MEXICO STATE UNIV, DEPT CHEM & BIOCHEM, LAS CRUCES, NM 88003  
COUNTRY OF AUTHOR: USA  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (17 DEC 1999) Vol. 274, No. 51, pp. 36089-36096.  
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\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Methylenetetrahydrofolate **reductase (MTHFR)** is the least understood enzyme of folate-mediated one-carbon metabolism in **plants**. Genomics-based approaches were used to identify one maize and two *Arabidopsis* cDNAs specifying proteins homologous to **MTHFRs** from other organisms. These cDNAs encode functional **MTHFRs**, as evidenced by their ability to complement a yeast *met12 met13* mutant, and by the presence of **MTHFR** activity in extracts of complemented yeast cells. Deduced sequence analysis shows that the **plant MTHFR** polypeptides are of similar size (66 kDa) and domain structure to other eukaryotic **MTHFRs**, and lack obvious targeting sequences. Southern analyses and genomic evidence indicate that *Arabidopsis* has two **MTHFR** genes and that maize has at least two. A carboxyl terminal polyhistidine tag was added to one *Arabidopsis MTHFR*, and used to purify the enzyme 640-fold to apparent homogeneity. Size exclusion chromatography and denaturing gel electrophoresis of the recombinant enzyme indicate that it exists as a dimer of approximate to 66-kDa subunits. Unlike mammalian **MTHFR**, the **plant enzymes** strongly prefer NADH to NADPH, and are not inhibited by S-adenosylmethionine. An NADH-dependent **MTHFR** reaction could be reversible in **plant cytosol**, where the NADH/NAD ratio is 10(-3). Consistent with this, leaf tissues metabolized [**methyl-C-14**]methyltetrahydrofolate to serine, sugars, and starch. A

reversible **MTHFR** reaction would obviate the need for inhibition by S-adenosylmethionine to prevent excessive conversion of methylene- to methyltetrahydrofolate.

L9 ANSWER 39 OF 78 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:26854 BIOSIS  
DOCUMENT NUMBER: PREV200000026854  
TITLE: Functional characterization of human methylenetetrahydrofolate reductase in *Saccharomyces cerevisiae*.  
AUTHOR(S): Shan, Xiaoyin; Wang, Liqun; Hoffmaster, Roselle; Kruger, Warren D. (1)  
CORPORATE SOURCE: (1) Division of Population Science, Fox Chase Cancer Center, 7701 Burholme Ave., Philadelphia, PA, 19111 USA  
SOURCE: Journal of Biological Chemistry, (Nov. 12, 1999) Vol. 274, No. 46, pp. 32613-32618.  
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SUMMARY LANGUAGE: English  
AB Human methylenetetrahydrofolate reductase (**MTHFR**, EC 1.5.1.20) catalyzes the reduction of 5,10-methylenetetrahydrofolate to 5-methyltetrahydrofolate. 5-Methyltetrahydrofolate is a major methyl donor in the remethylation of homocysteine to methionine. Impaired **MTHFR** can cause high levels of homocysteine in plasma, which is an independent risk factor for vascular disease and neural tube defects. We have functionally characterized wild-type and several mutant alleles of human **MTHFR** in yeast, *Saccharomyces cerevisiae*. We have shown that yeast MET11 is a functional homologue of human **MTHFR**. Expression of the human **MTHFR** cDNA in a yeast strain deleted for MET11 can restore the strain's **MTHFR** activity in vitro and complement its methionine auxotrophic phenotype in vivo. To understand the domain structure of human **MTHFR**, we have truncated the C terminus (50%) of the protein and demonstrated that expressing an N-terminal human **MTHFR** in met11- yeast cells rescues the growth phenotype, indicating that this region contains the catalytic domain of the enzyme. However, the truncation leads to the reduced protein levels, suggesting that the C terminus may be important for protein stabilization. We have also functionally characterized four missense mutations identified from patients with severe **MTHFR** deficiency and two common missense polymorphisms found at high frequency in the general population. Three of the four missense mutations are unable to complement the auxotrophic phenotype of met11- yeast cells and show less than 7% enzyme activity of the wild type in vitro. Both of the two common polymorphisms are able to complement the growth phenotype, although one exhibited thermolabile enzyme activity in vitro. These results shall be useful for the functional characterization of **MTHFR** mutations and analysis structure/function relationship of the enzyme.

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SEA REDUCTAS? AND METHYLENETETRA?

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4 FILE IPA  
24 FILE NLDB

L1       QUE REDUCTAS? AND METHYLENETETRA?

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FILE 'SCISEARCH, BIOSIS, EMBASE, CAPLUS, MEDLINE, PASCAL, TOXCENTER,  
ESBIOBASE, BIOTECHNO, GENBANK, DGENE, CANCERLIT, USPATFULL, CABA,  
LIFESCI' ENTERED AT 17:50:25 ON 28 FEB 2003

L2       0 S REDUCTAS? SAME METHYLENETETRA?

L3       10663 S REDUCTAS? AND METHYLENETETRA?

L4       10320 S REDUCTAS? AND METHYLENETETRAHYDROFOLAT?

L5       12478 S REDUCTAS? AND FOLATE?

L6       0 S REDUCTAS? SAME MTHFR?

L7       6544 S REDUCTAS? AND MTHFR?

L8       138 S (PLANT? OR SOY? OR GLYCINE?) AND L7

L9       78 DUP REM L8 (60 DUPLICATES REMOVED)

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